ICF-M350V

SONY

US Model

SERVICE MANUAL

Ver 1.0 1999. 12

SUPPLEMENT-1

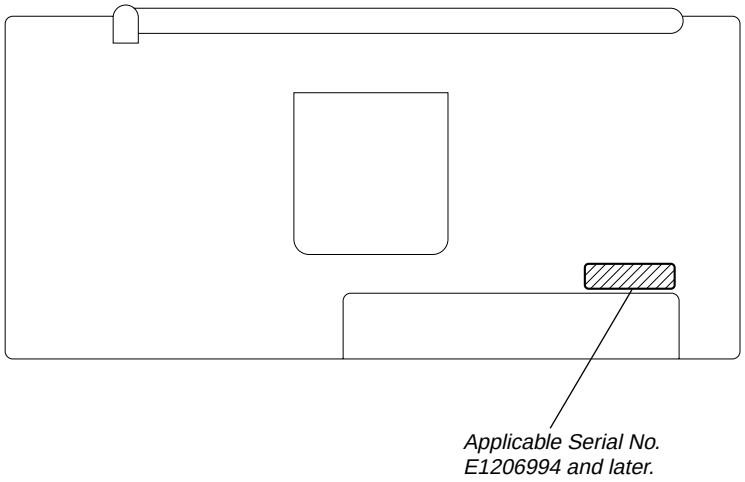
File this supplement with the service manual.

Subject: MAIN/KEY Board Modification

(ECN-TRB00055)

- **Discrimination**

– Cabinet (Rear) –



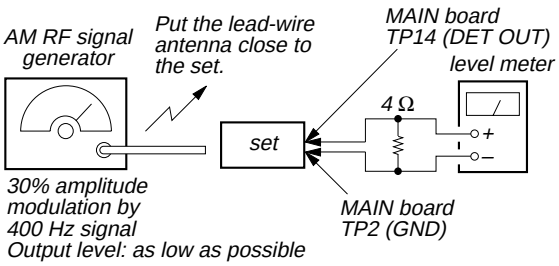
Applicable Serial No.
E1206994 and later.

1. ELECTRICAL ADJUSTMENTS

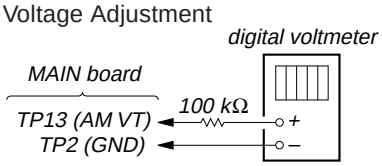
0 dB=1 µV

[AM]
Setting:
BAND: AM

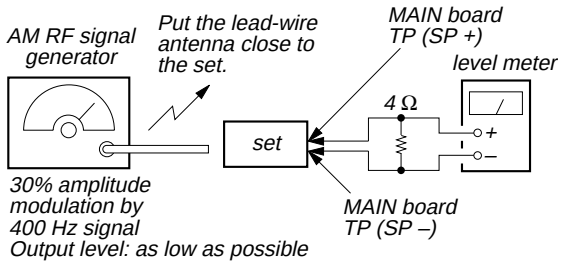
• AM IF Adjustment



• AM VT Voltage Adjustment

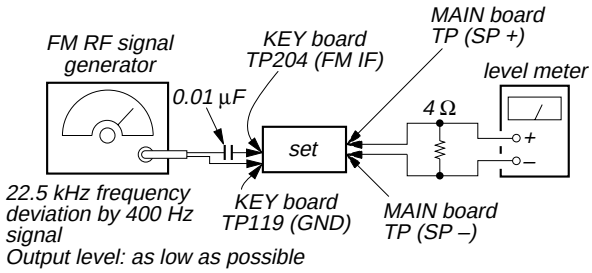


• AM Tracking Adjustment

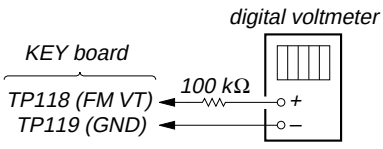


[FM/TV]
Setting:
BAND: FM, TV or Weather

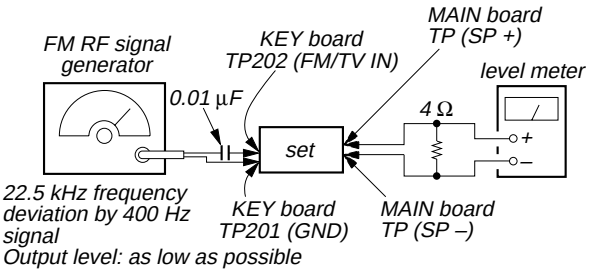
• FM IF Adjustment



• FM/TV VT Voltage Confirmation



• FM/TV Tracking Adjustment



• Repeat the procedures in each adjustment several times, and the tracking adjustments should be finally done by the trimmer capacitors.
• Remove FM antenna in FM adjustment.

AM IF ADJUSTMENT	
Adjust for a maximum reading on level meter	
T1	450 kHz

AM VT VOLTAGE ADJUSTMENT		
Adjustment Part	Frequency Display	Reading on Digital Voltmeter
L2	530 kHz	1.5 ± 0.1 V
Confirmation	1,710 kHz	7 to 9 V

AM TRACKING ADJUSTMENT	
Adjust for a maximum reading on level meter	
L1	590 kHz
CT1	1,490 kHz

FM IF ADJUSTMENT	
Adjust for a maximum reading on level meter	
T201	10.7 MHz

FM VT VOLTAGE CONFIRMATION		
	Frequency Display	Reading on Digital Voltmeter
Confirmation	TV 2CH	0.9 ± 0.2 V
Confirmation	108 MHz	9 to 11.5 V

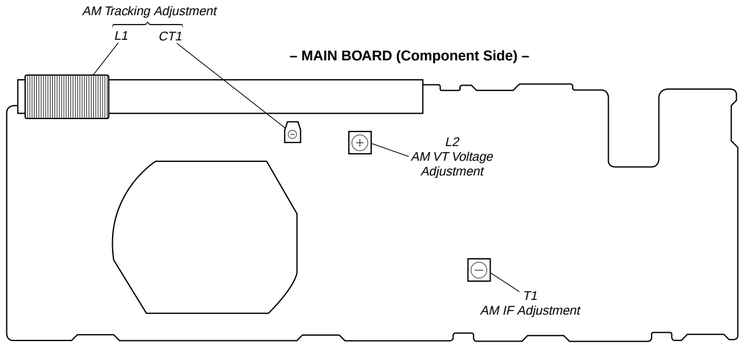
FM TRACKING ADJUSTMENT	
Adjust for a maximum reading on level meter	
L203	TV 2CH
CT202	108 MHz

TV VT VOLTAGE CONFIRMATION		
	Frequency Display	Reading on Digital Voltmeter
Confirmation	Weather 2CH	0.7 ± 0.2 V
Confirmation	TV 13CH	9.5 to 11.5 V

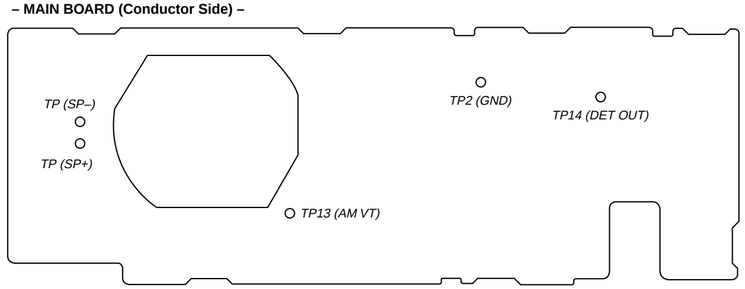
TV TRACKING ADJUSTMENT	
Adjust for a maximum reading on level meter	
L202	Weather 2CH
CT201	TV 13CH

Adjustment Location: MAIN and KEY board (See page 3)

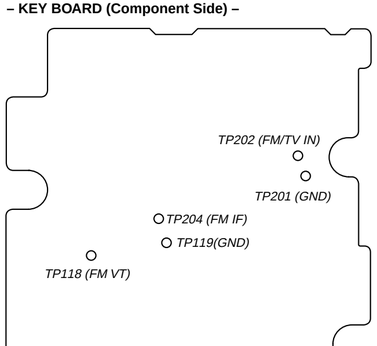
Adjustment Location:



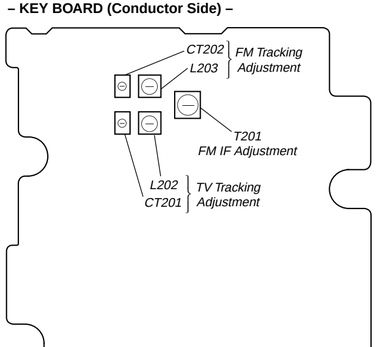
– MAIN BOARD (Conductor Side) –



– KEY BOARD (Component Side) –

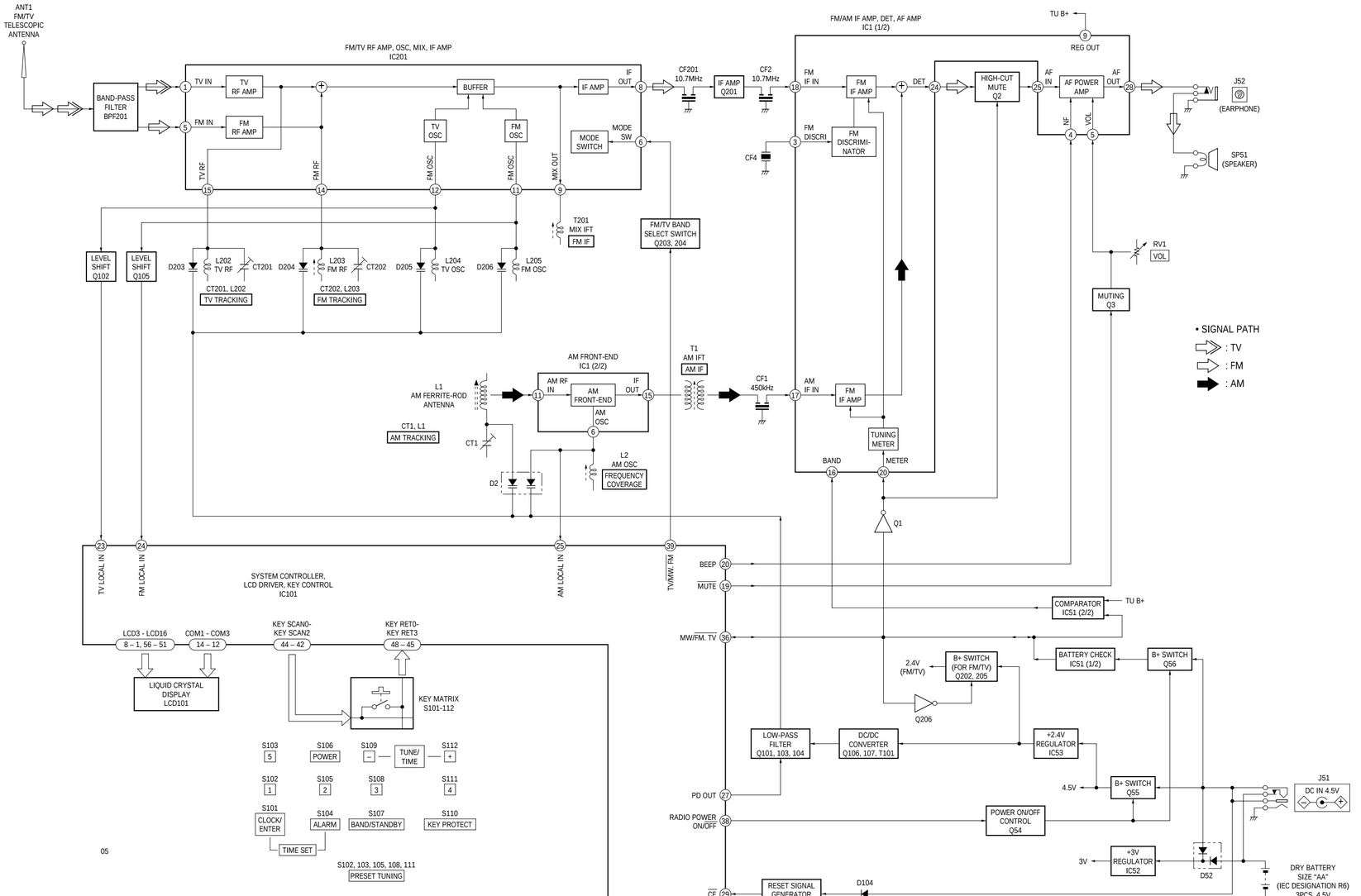


– KEY BOARD (Conductor Side) –

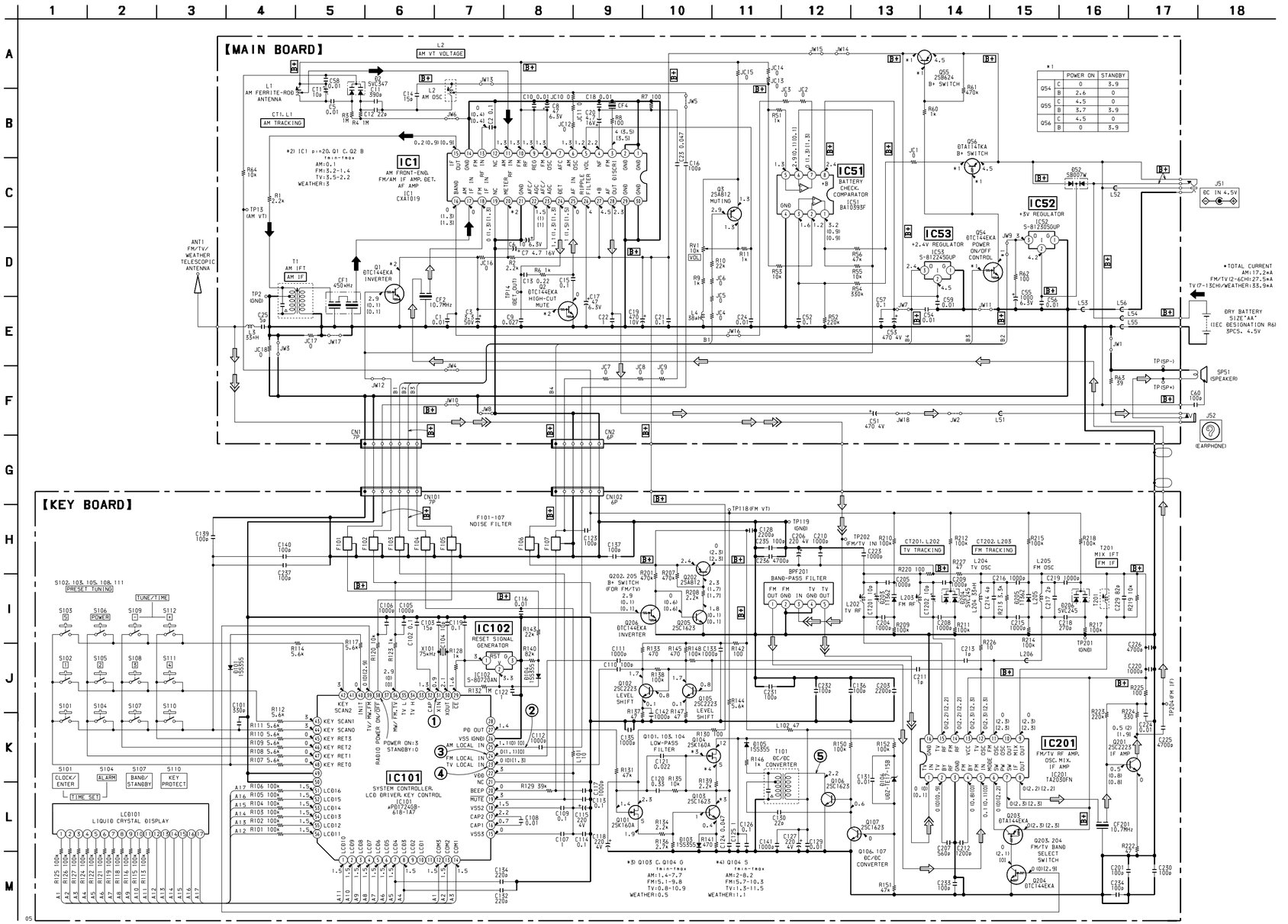


2. DIAGRAMS

2-1. BLOCK DIAGRAM



2-2. SCHEMATIC DIAGRAM • See page 11 for Waveforms. • See page 11 for IC Block Diagrams.



Note on Schematic Diagram:

- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- △ : internal component.
- ▭ : panel designation.
- B+ : B+ Line.
- ▬ : adjustment for repair.
- Power voltage is dc 4.5 V and fed with regulated dc power supply from battery terminal.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark : AM
  ( ) :FM/TV (2 to 6CH)
  [ ] : TV (7 to 13CH)/weather
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : TV
  ⇨ : FM
  ➡ : AM

Note on Printed Wiring Boards:

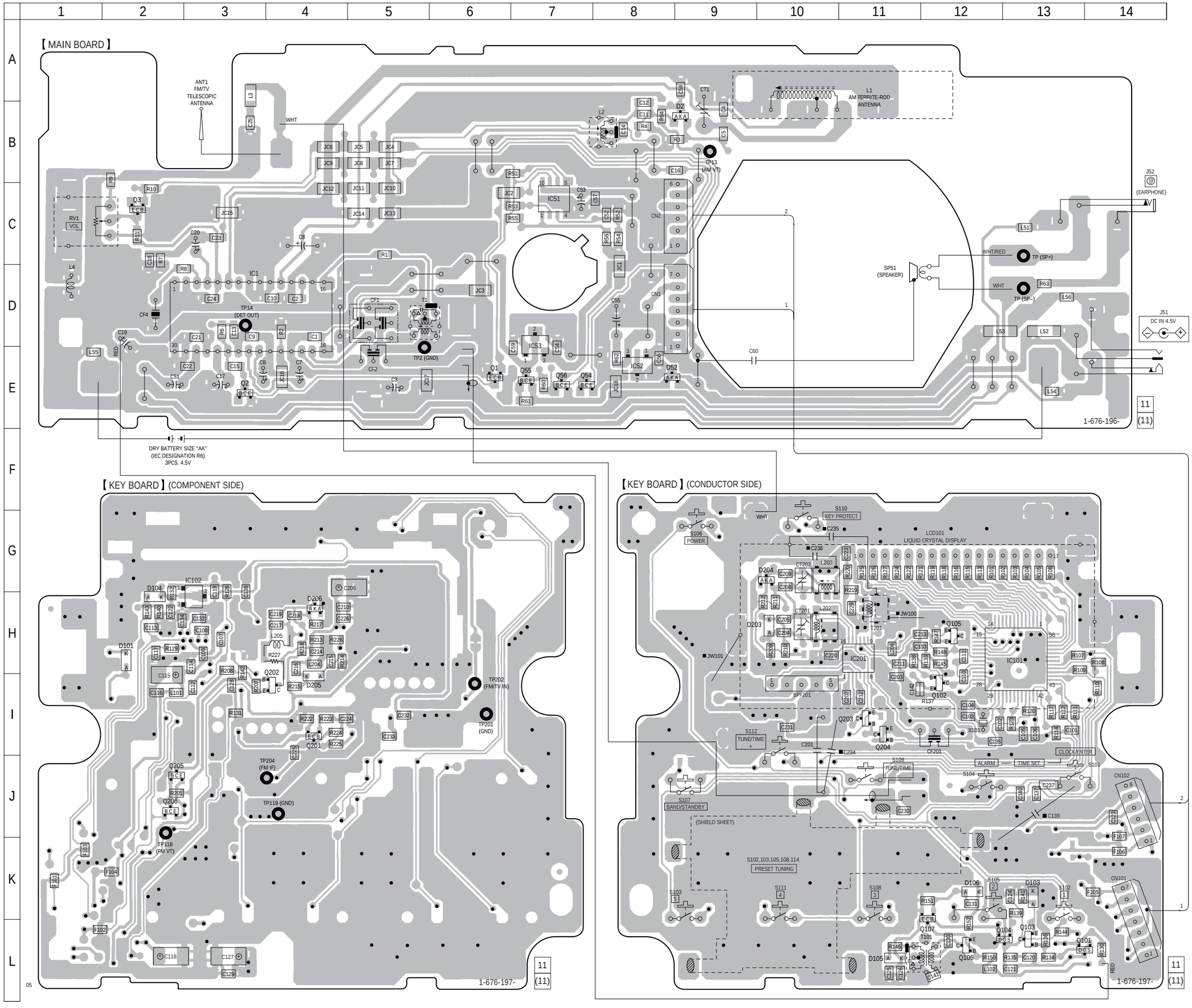
- ○——— : parts extracted from the component side.
- ——— : parts extracted from the conductor side.
- ■ : parts mounted on the conductor side.
- ⊡ : indicates side identified with part number.
- ● : Through hole.
- △ : internal component.
- ▨ : Pattern from the side which enables seeing.

(The other layers' patterns are not indicated.)

Caution:

Pattern face side: (Conductor Side)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Component Side)	Parts on the parts face side seen from the parts face are indicated.

2-3. PRINTED WIRING BOARDS

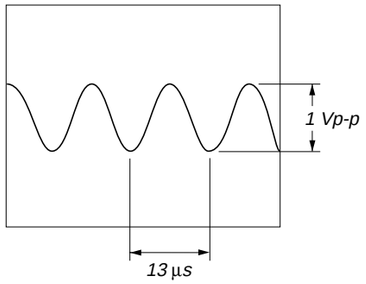


- **Semiconductor Location**

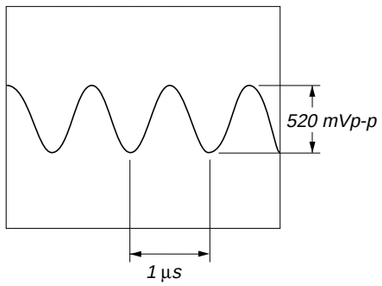
Ref. No.	Location
D2	B-9
D52	E-8
D101	H-2
D103	K-13
D104	H-2
D105	L-11
D106	K-12
D203	H-10
D204	G-10
D205	I-4
D206	H-4
IC1	D-3
IC51	C-7
IC52	E-8
IC53	D-7
IC101	H-13
IC102	H-3
IC201	H-11
Q1	E-6
Q2	E-3
Q3	C-2
Q54	E-7
Q55	E-7
Q56	E-7
Q101	L-13
Q102	I-12
Q103	L-13
Q104	L-13
Q105	H-12
Q106	L-12
Q107	L-12
Q201	I-4
Q202	I-4
Q203	I-11
Q204	I-11
Q205	J-2
Q206	J-2

• Waveforms

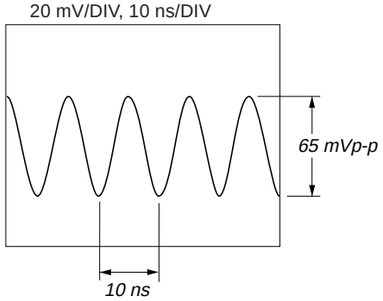
❶ IC101 ㉛ (XIN)
500 mV/DIV, 5 µs/DIV



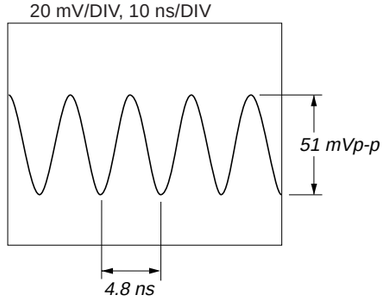
❷ IC101 ㉕ (AM LOCAL IN) (Band: AM)
200 mV/DIV, 500 ns/DIV



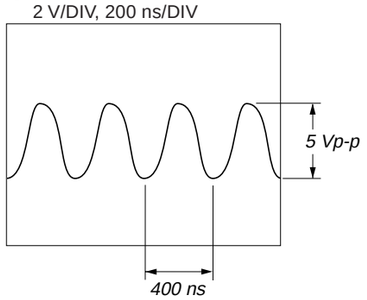
❸ IC101 ㉖ (FM LOCAL IN) (Band: FM)
20 mV/DIV, 10 ns/DIV



❹ IC101 ㉗ (TV LOCAL IN) (Band: TV H)
20 mV/DIV, 10 ns/DIV

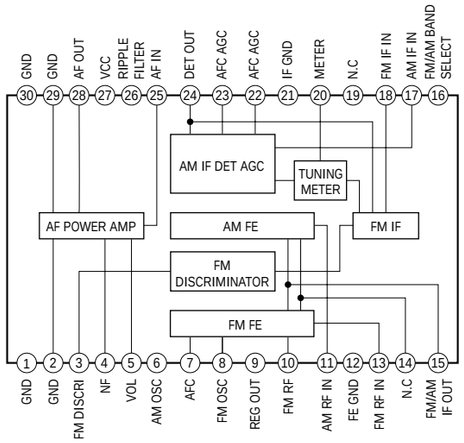


❺ Q106 collector
2 V/DIV, 200 ns/DIV

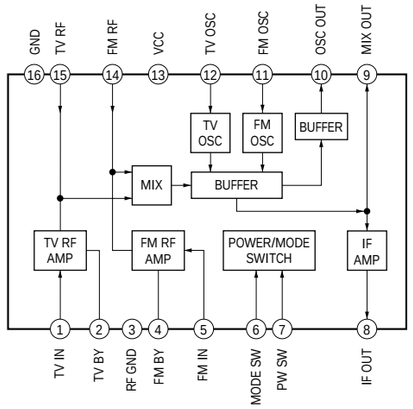


• IC Block Diagrams

IC1 CXA1019S



IC201 TA2030FN (EL)



2-4. IC PIN FUNCTION DESCRIPTION

• KEY BOARD IC101 µPD1724GB-618-1A7 (SYSTEM CONTROLLER, LCD DRIVER, KEY CONTROL)

Pin No.	Pin Name	I/O	Description
1 to 8	LCD10 to LCD3	O	Segment drive signal output to the liquid crystal display (LCD101)
9, 10	LCD2, LCD1	O	Segment drive signal output to the liquid crystal display Not used (open)
11	—	—	Not used (open)
12 to14	COM3 to COM1	O	Common drive signal output to the liquid crystal display (LCD101)
15	VSS3	—	Ground terminal
16, 17	CAP1, CAP2	—	Terminal for doubler circuit capacitor connection to develop liquid crystal display drive voltage
18	VSS2	—	Ground terminal
19	$\overline{\text{MUTE}}$	O	Muting on/off control signal output “L”: muting on
20	BEEP	O	Buzzer sound signal output terminal
21	NC	—	Not used (fixed at “L”)
22	VDD	—	Power supply terminal (+3V)
23	TV LOCAL IN	I	TV (7 to 13CH, weather) VCO input terminal
24	FM LOCAL IN	I	FM/TV (2 to 6CH) VCO input terminal
25	AM LOCAL IN	I	AM VCO input terminal
26	VSS (GND)	—	Ground terminal
27	PD OUT	O	PLL error output terminal
28	—	—	Not used (open)
29	$\overline{\text{CE}}$	I	System reset signal input from the reset signal generator (IC102) “L”: reset For several hundreds msec. after the power supply rises, “L” is input, then it changes to “H”
30	XOUT	O	System clock output terminal (75kHz)
31	XIN	I	System clock input terminal (75kHz)
32	CAP	—	Terminal for regulator circuit capacitor connection to attain stable drive voltage of the oscillator
33	—	—	Not used (open)
34	TV H	O	TV band select signal output terminal Not used (open)
35	TV L	O	TV band select signal output terminal Not used (open)
36	MW/$\overline{\text{FM. TV}}$	I/O	Battery check signal input from battery check (IC51) and AM or FM/TV band select signal output “L”: FM/TV, “H”: AM
37	—	—	Not used (open)
38	RADIO $\overline{\text{POWER}}$ ON/OFF	O	Power on/off control signal output terminal “L”: power off, “H”: power on
39	TV/$\overline{\text{MW. FM}}$	O	FM/TV (2 to 6CH) or TV (7 to 13CH, weather) band select signal output “L”: FM/TV (2 to 6CH), “H”: TV (7 to 13CH, weather)
40	INIT	O	Initialize signal output to KEY RET0 (pin ㊽)
41	—	—	Not used (open)
42 to 44	KEY SCAN2 to KEY SCAN0	O	Key scan signal output to the key matrix
45 to 48	KEY RET3 to KEY RET0	I	Key return signal input from the key matrix
49, 50	—	—	Not used (fixed at “L”)
51 to 56	LCD16 to LCD11	O	Segment drive signal output to the liquid crystal display (LCD101)

3. EXPLODED VIEWS

☛ : Indicates added portion.

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<tr><td>9</td><td>4-860-518-00</td><td>CUSHION</td><td></td></tr>
<tr><td>12</td><td>3-370-475-01</td><td>SCREW (NYLOCK +B 3X6)</td><td></td></tr>
<tr><td>13</td><td>7-685-650-79</td><td>SCREW +P 3X16 TYPE2 NON-SLIT</td><td></td></tr>
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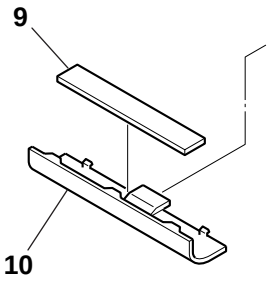
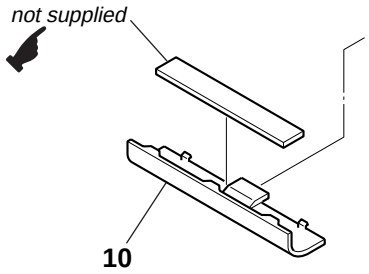
<tr><td> 
</td><td> 
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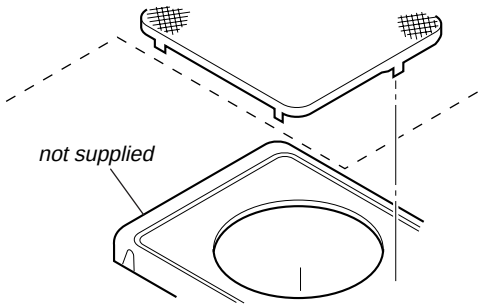
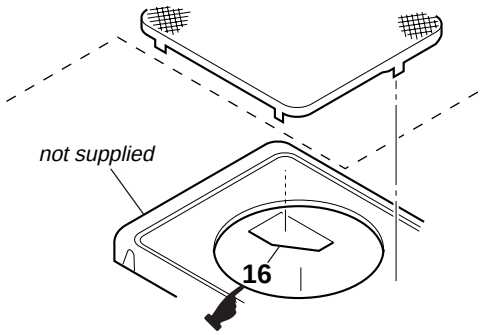
<tr><td> 
</td><td> 
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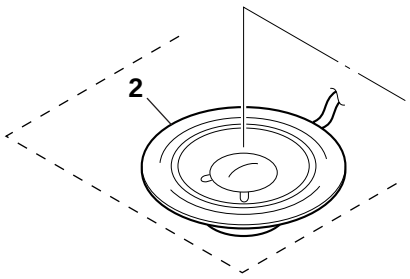
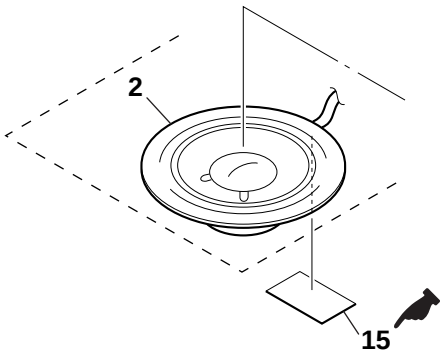
<tr><td> 
</td><td> 
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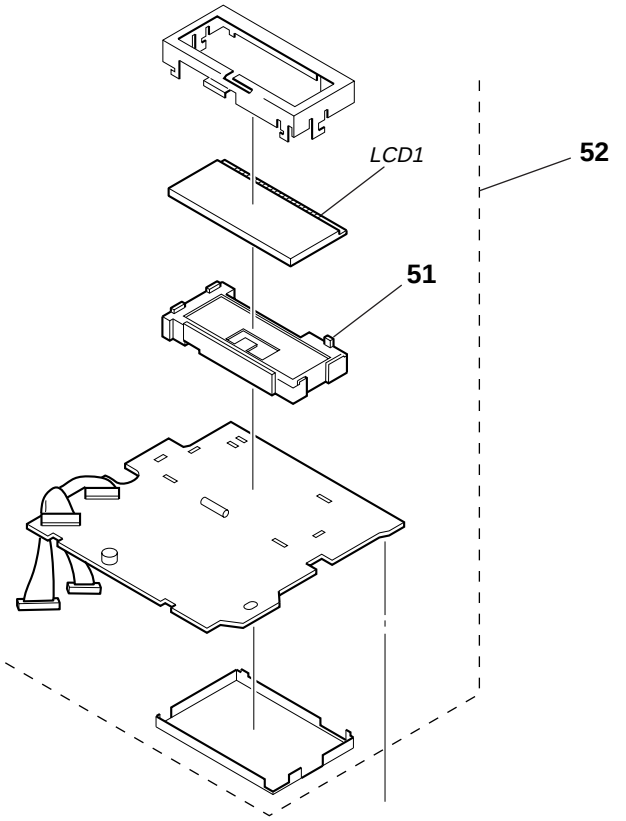
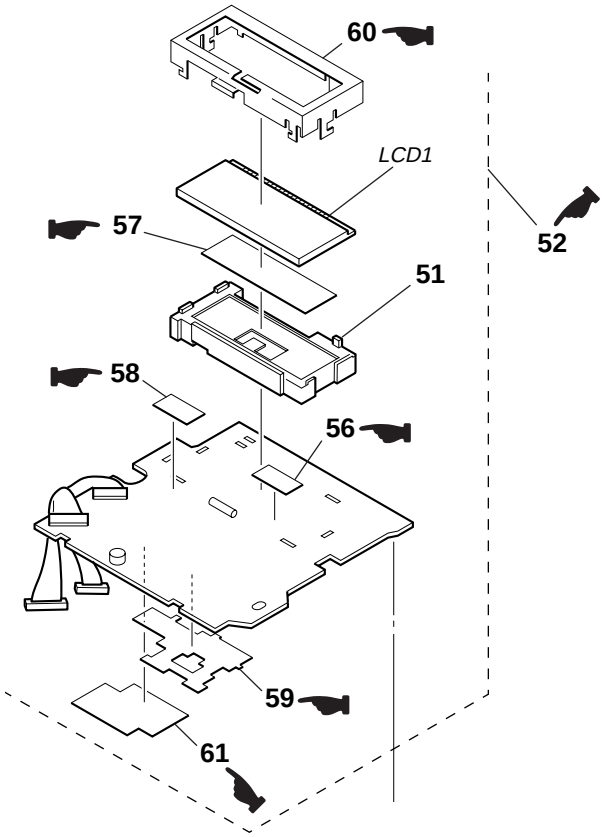
Page	Before Change				After Change			
	Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
	* 51	3-380-336-01	HOLDER (LCD)		* 51	3-043-509-01	HOLDER (LCD)	
	* 52	A-3679-479-A	DISPLAY BOARD, COMPLETE		52	A-3663-452-A	KEY BOARD, COMPLETE	
	* 55	A-3679-478-A	MAIN BOARD, COMPLETE		55	A-3663-449-A	MAIN BOARD, COMPLETE	
					56	3-045-823-01	SPACER (BPF)	
					57	3-043-511-01	SHIELD (LCD), SHEET	
					58	3-043-510-01	INSULATING SHEET	
					59	3-043-512-01	SHIELD (KEY), SHEET	
					60	3-043-507-01	SHIELD (LCD)	
					61	3-046-614-01	SHIELD (DD), SHEET	
14								

• Items marked "*" are not stocked since they are seldom required for routine service.
Some delay should be anticipated when ordering these items.

4. ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL: Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F: nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service.
  Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u: μ, for example:
  uA. . : μA. . uPA. . : μPA. .
  uPB. . : μPB. . uPC. . : μPC. .
  uPD. . : μPD. .
- CAPACITORS
  uF: μF
- COILS
  uH: μH

Ref. No.	Part No.	Description			Remark
	A-3663-452-A	KEY BOARD, COMPLETE			
		**********			
	3-043-507-01	SHIELD (LCD)			
	3-043-509-01	HOLDER (LCD)			
	3-043-510-01	INSULATING SHEET			
	3-043-511-01	SHIELD (LCD), SHEET			
	3-043-512-01	SHIELD (KEY), SHEET			
	3-045-823-01	SPACER (BPF)			
	3-046-614-01	SHIELD (DD), SHEET			
		< BAND-PASS FILTER >			
BPF201	1-781-765-11	FILTER, BAND PASS			
		< CAPACITOR >			
C101	1-163-129-00	CERAMIC CHIP	330PF	5%	50V
C102	1-163-038-00	CERAMIC CHIP	0.1uF	0%	25V
C103	1-163-231-11	CERAMIC CHIP	15PF	5%	50V
C104	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C105	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C106	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C107	1-164-346-11	CERAMIC CHIP	1uF	0%	16V
C108	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C109	1-163-038-00	CERAMIC CHIP	0.1uF	0%	25V
C110	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C111	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C112	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C113	1-163-038-00	CERAMIC CHIP	0.1uF	0%	25V
C114	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C115	1-125-899-11	TANTALUM CHIP	220uF	20%	4V
C116	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C117	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C118	1-125-899-11	TANTALUM CHIP	220uF	20%	4V
C119	1-163-038-00	CERAMIC CHIP	0.1uF	0%	25V
C120	1-110-501-11	CERAMIC CHIP	0.33uF	10%	16V
C121	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C122	1-164-346-11	CERAMIC CHIP	1uF	0%	16V
C123	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C124	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C125	1-164-346-11	CERAMIC CHIP	1uF	0%	16V
C126	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C127	1-125-899-11	TANTALUM CHIP	220uF	20%	4V

Ref. No.	Part No.	Description			Remark
C128	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V
C129	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C130	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C131	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C132	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C133	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C134	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C135	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
C136	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C137	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C138	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C139	1-128-809-11	CERAMIC	100PF	5%	50V
C140	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C141	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C142	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C201	1-128-809-11	CERAMIC	100PF	5%	50V
C202	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C203	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V
C204	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C205	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C206	1-125-899-11	TANTALUM CHIP	220uF	20%	4V
C207	1-163-135-00	CERAMIC CHIP	560PF	5%	50V
C208	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C209	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C210	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C211	1-163-217-11	CERAMIC CHIP	1PF	0.25PF	50V
C212	1-163-010-11	CERAMIC CHIP	0.0012uF	10%	50V
C213	1-163-217-11	CERAMIC CHIP	1PF	0.25PF	50V
C214	1-163-087-00	CERAMIC CHIP	4PF		50V
C215	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C216	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
C217	1-163-085-00	CERAMIC CHIP	2PF		50V
C218	1-163-127-00	CERAMIC CHIP	270PF	5%	50V
C219	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
C220	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C223	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C224	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C225	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C226	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C227	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V
C229	1-163-249-11	CERAMIC CHIP	82PF	5%	50V
C230	1-163-117-00	CERAMIC CHIP	100PF	5%	50V

KEY

Ref. No.	Part No.	Description			Remark
C231	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C232	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C233	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C234	1-128-809-11	CERAMIC	100PF	5%	50V
C235	1-128-809-11	CERAMIC	100PF	5%	50V
C236	1-162-600-11	CERAMIC	4700P	20%	16V
C237	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
		< CERAMIC FILTER >			
CF201	1-579-265-81	FILTER, CERAMIC			
		< CONNECTOR >			
CN101	1-792-229-11	WIRE, LEAD (7 CORE)			
CN102	1-792-228-11	WIRE, LEAD (6 CORE)			
		< TRIMMER >			
CT201	1-141-482-21	CAP, ADJ 10PF			
CT202	1-141-482-21	CAP, ADJ 10PF			
		< DIODE >			
D101	8-719-988-61	DIODE 1SS355TE-17			
D103	8-719-988-61	DIODE 1SS355TE-17			
D104	8-719-988-61	DIODE 1SS355TE-17			
D105	8-719-988-61	DIODE 1SS355TE-17			
D106	8-719-978-65	DIODE UDZ-TE-17-15B			
D203	8-713-100-11	DIODE 1T362			
D204	8-719-078-37	DIODE SVC245-TB			
D205	8-713-100-11	DIODE 1T362			
D206	8-719-078-37	DIODE SVC245-TB			
		< FILTER >			
F101	1-781-766-21	FILTER, 3 TERMINAL NOISE			
F102	1-781-766-21	FILTER, 3 TERMINAL NOISE			
F103	1-781-766-21	FILTER, 3 TERMINAL NOISE			
F104	1-781-766-21	FILTER, 3 TERMINAL NOISE			
F105	1-781-766-21	FILTER, 3 TERMINAL NOISE			
F106	1-781-766-21	FILTER, 3 TERMINAL NOISE			
F107	1-781-766-21	FILTER, 3 TERMINAL NOISE			
		< IC >			
IC101	8-759-166-45	IC uPD1724GB-618-1A7			
IC102	8-759-070-05	IC S-50720AN-DH-S			
IC201	8-759-658-32	IC TA2030FN (EL)			
		< COIL/RESISTOR >			
L101	1-216-001-00	METAL CHIP	10	5%	1/10W
L102	1-216-017-00	RES-CHIP	47	5%	1/10W
L202	1-419-515-11	COIL, RF			
L203	1-419-516-11	COIL, RF			
L204	1-412-921-61	INDUCTOR (CHIP)		33nH	
L205	1-419-556-11	COIL, AIR-CORE			
L206	1-469-650-22	FERRITE			
		< LIQUID CRYSTAL DISPLAY >			
LCD101	1-810-011-11	DISPLAY PANEL, LIQUID CRYSTAL			

Ref. No.	Part No.	Description			Remark
		< TRANSISTOR >			
Q101	8-729-117-83	FET	2SK160A-K25		
Q102	8-729-102-07	TRANSISTOR	2SC2223-F13		
Q103	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q104	8-729-117-83	FET	2SK160A-K25		
Q105	8-729-102-07	TRANSISTOR	2SC2223-F13		
Q106	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q107	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q201	8-729-102-07	TRANSISTOR	2SC2223-F13		
Q202	8-729-216-22	TRANSISTOR	2SA1162-G		
Q203	8-729-027-38	TRANSISTOR	DTA144EKA-T146		
Q204	1-801-806-11	TRANSISTOR	DTC144EKA-T146		
Q205	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q206	1-801-806-11	TRANSISTOR	DTC144EKA-T146		
		< RESISTOR >			
R101	1-216-097-00	RES-CHIP	100K	5%	1/10W
R102	1-216-097-00	RES-CHIP	100K	5%	1/10W
R103	1-216-097-00	RES-CHIP	100K	5%	1/10W
R104	1-216-097-00	RES-CHIP	100K	5%	1/10W
R105	1-216-097-00	RES-CHIP	100K	5%	1/10W
R106	1-216-097-00	RES-CHIP	100K	5%	1/10W
R107	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
R108	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
R109	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
R110	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
R111	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
R112	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
R113	1-216-097-00	RES-CHIP	100K	5%	1/10W
R114	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
R115	1-216-097-00	RES-CHIP	100K	5%	1/10W
R116	1-216-097-00	RES-CHIP	100K	5%	1/10W
R117	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
R118	1-216-097-00	RES-CHIP	100K	5%	1/10W
R119	1-216-097-00	RES-CHIP	100K	5%	1/10W
R120	1-216-073-00	METAL CHIP	10K	5%	1/10W
R121	1-216-097-00	RES-CHIP	100K	5%	1/10W
R122	1-216-097-00	RES-CHIP	100K	5%	1/10W
R123	1-216-049-11	RES-CHIP	1K	5%	1/10W
R124	1-216-097-00	RES-CHIP	100K	5%	1/10W
R125	1-216-097-00	RES-CHIP	100K	5%	1/10W
R126	1-216-097-00	RES-CHIP	100K	5%	1/10W
R127	1-216-097-00	RES-CHIP	100K	5%	1/10W
R128	1-216-049-11	RES-CHIP	1K	5%	1/10W
R129	1-216-689-11	METAL CHIP	39K	0.5%	1/10W
R130	1-216-025-00	RES-CHIP	100	5%	1/10W
R131	1-216-089-00	RES-CHIP	47K	5%	1/10W
R132	1-216-121-00	RES-CHIP	1M	5%	1/10W
R133	1-216-041-00	METAL CHIP	470	5%	1/10W
R134	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R135	1-216-073-00	METAL CHIP	10K	5%	1/10W
R136	1-216-059-00	METAL CHIP	2.7K	5%	1/10W
R137	1-216-017-00	RES-CHIP	47	5%	1/10W
R138	1-216-097-00	RES-CHIP	100K	5%	1/10W
R139	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R140	1-216-095-00	METAL CHIP	82K	5%	1/10W
R141	1-216-057-00	METAL CHIP	2.2K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R142	1-216-025-00	RES-CHIP	100	5%	1/10W
R143	1-216-081-00	METAL CHIP	22K	5%	1/10W
R144	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
R145	1-216-041-00	METAL CHIP	470	5%	1/10W
R146	1-216-049-11	RES-CHIP	1K	5%	1/10W
R147	1-216-017-00	RES-CHIP	47	5%	1/10W
R148	1-216-097-00	RES-CHIP	100K	5%	1/10W
R150	1-216-097-00	RES-CHIP	100K	5%	1/10W
R151	1-216-089-00	RES-CHIP	47K	5%	1/10W
R152	1-216-097-00	RES-CHIP	100K	5%	1/10W
R201	1-216-113-00	METAL CHIP	470K	5%	1/10W
R207	1-216-113-00	METAL CHIP	470K	5%	1/10W
R208	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R209	1-216-097-00	RES-CHIP	100K	5%	1/10W
R210	1-216-097-00	RES-CHIP	100K	5%	1/10W
R211	1-216-097-00	RES-CHIP	100K	5%	1/10W
R212	1-216-097-00	RES-CHIP	100K	5%	1/10W
R213	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R214	1-216-097-00	RES-CHIP	100K	5%	1/10W
R215	1-216-097-00	RES-CHIP	100K	5%	1/10W
R217	1-216-097-00	RES-CHIP	100K	5%	1/10W
R218	1-216-097-00	RES-CHIP	100K	5%	1/10W
R219	1-216-073-00	METAL CHIP	10K	5%	1/10W
R220	1-216-025-00	RES-CHIP	100	5%	1/10W
R222	1-216-017-00	RES-CHIP	47	5%	1/10W
R223	1-216-105-00	RES-CHIP	220K	5%	1/10W
R224	1-216-037-00	METAL CHIP	330	5%	1/10W
R225	1-216-025-00	RES-CHIP	100	5%	1/10W
R226	1-216-001-00	METAL CHIP	10	5%	1/10W
R227	1-249-401-11	CARBON	47	5%	1/4W
		< SWITCH >			
S101	1-571-760-11	SWITCH, KEY BOARD (TIME SET, CLOCK/ENTER)			
S102	1-571-760-11	SWITCH, KEY BOARD (PRESET TUNING 1)			
S103	1-571-760-11	SWITCH, KEY BOARD (PRESET TUNING 5)			
S104	1-571-760-11	SWITCH, KEY BOARD (TIME SET, ALARM)			
S105	1-571-760-11	SWITCH, KEY BOARD (PRESET TUNING 2)			
S106	1-571-760-11	SWITCH, KEY BOARD (POWER)			
S107	1-571-760-11	SWITCH, KEY BOARD (BAND/STANDBY)			
S108	1-571-760-11	SWITCH, KEY BOARD (PRESET TUNING 3)			
S109	1-571-760-11	SWITCH, KEY BOARD (TUNE/TIME –)			
S110	1-572-596-21	SWITCH, KEY BOARD (KEY PROTECT)			
S111	1-571-760-11	SWITCH, KEY BOARD (PRESET TUNING 4)			
S112	1-571-760-11	SWITCH, KEY BOARD (TUNE/TIME +)			
		< TRANSFORMER >			
T101	1-449-138-61	TRANSFORMER, DC-DC CONVERTER			
T201	1-435-354-11	TRANSFORMER, IF			
		< VIBRATOR >			
X101	1-567-769-11	VIBRATOR, CRYSTAL (75kHz)			

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Ref. No.	Part No.	Description			Remark
	A-3663-449-A	MAIN BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C1	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C2	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C3	1-126-162-11	ELECT	3.3uF	20%	50V
C5	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C6	1-126-157-11	ELECT	10uF	20%	16V
C7	1-124-259-11	ELECT	4.7uF	20%	16V
C8	1-124-589-11	ELECT	47uF	20%	16V
C9	1-163-986-00	CERAMIC CHIP	0.027uF	10%	25V
C10	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C11	1-163-131-00	CERAMIC CHIP	390PF	5%	50V
C12	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C13	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C14	1-163-097-00	CERAMIC CHIP	15PF	5%	50V
C15	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C16	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C17	1-124-589-11	ELECT	47uF	20%	16V
C18	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C19	1-126-925-11	ELECT	470uF	20%	10V
C20	1-124-259-11	ELECT	4.7uF	20%	16V
C21	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C22	1-164-346-11	CERAMIC CHIP	1uF	0%	16V
C23	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C24	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C25	1-163-222-11	CERAMIC CHIP	5PF	0.25PF	50V
C51	1-126-518-11	ELECT	470uF	20%	4V
C52	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C53	1-126-518-11	ELECT	470uF	20%	4V
C54	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C55	1-126-916-11	ELECT	1000uF	20%	6.3V
C56	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C57	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C58	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C59	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C60	1-128-809-11	CERAMIC	100PF	5%	50V
		< FILTER >			
CF1	1-567-777-11	FILTER, CERAMIC			
CF2	1-579-265-81	FILTER, CERAMIC			
CF4	1-579-265-81	FILTER, CERAMIC			
		< CONNECTOR >			
* CN1	1-506-989-11	PIN, CONNECTOR (PC BOARD) 7P			
* CN2	1-506-988-11	PIN, CONNECTOR (PC BOARD) 6P			
		< TRIMMER >			
CT1	1-141-601-21	CAP, ADJ			
		< DIODE >			
D2	8-719-072-59	DIODE SVC347S-TL			
D52	8-719-986-76	DIODE SB007W03C			
		< IC >			
IC1	8-752-037-02	IC CXA1019S			

MAIN

Ref. No.	Part No.	Description			Remark
IC51	8-759-510-73	IC BA10393F-E2			
IC52	8-759-431-95	IC S-81230SGUP-DQB-T1			
IC53	8-759-662-22	IC S-81224SGUP-DQX-T1			
		< JACK >			
J51	1-695-153-11	JACK, DC (DC IN 4.5V)			
J52	1-563-836-21	JACK (②)			
		< SHORT >			
JC1	1-216-296-00	SHORT	0		
JC2	1-216-296-00	SHORT	0		
JC3	1-216-296-00	SHORT	0		
JC4	1-216-296-00	SHORT	0		
JC5	1-216-296-00	SHORT	0		
JC6	1-216-296-00	SHORT	0		
JC7	1-216-296-00	SHORT	0		
JC8	1-216-296-00	SHORT	0		
JC9	1-216-296-00	SHORT	0		
JC10	1-216-296-00	SHORT	0		
JC11	1-216-296-00	SHORT	0		
JC12	1-216-296-00	SHORT	0		
JC13	1-216-296-00	SHORT	0		
JC14	1-216-296-00	SHORT	0		
JC15	1-216-296-00	SHORT	0		
JC16	1-216-296-00	SHORT	0		
JC17	1-216-296-00	SHORT	0		
JC18	1-216-296-00	SHORT	0		
		< COIL >			
L1	1-501-583-11	ANTENNA, FERRITE-ROD (MW)			
L2	1-406-489-11	COIL (OSC)			
L3	1-412-921-61	INDUCTOR	33nH		
L4	1-410-294-11	INDUCTOR, MICRO	38uH		
L51	1-414-230-22	FERRITE			
L52	1-469-568-21	FERRITE			
L53	1-469-568-21	FERRITE			
L54	1-469-350-21	FERRITE			
L55	1-469-350-21	FERRITE			
L56	1-414-235-22	FERRITE			
		< TRANSISTOR >			
Q1	1-801-806-11	TRANSISTOR	DTC144EKA-T146		
Q2	1-801-806-11	TRANSISTOR	DTC144EKA-T146		
Q3	8-729-216-22	TRANSISTOR	2SA1162-G		
Q54	1-801-806-11	TRANSISTOR	DTC144EKA-T146		
Q55	8-729-141-48	TRANSISTOR	2SB624-BV345		
Q56	8-729-027-24	TRANSISTOR	DTA114TKA-T146		
		< RESISTOR >			
R1	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R2	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R3	1-216-121-00	RES-CHIP	1M	5%	1/10W
R4	1-216-121-00	RES-CHIP	1M	5%	1/10W
R6	1-216-049-11	RES-CHIP	1K	5%	1/10W
R7	1-216-025-00	RES-CHIP	100	5%	1/10W
R8	1-216-025-00	RES-CHIP	100	5%	1/10W
R9	1-216-049-11	RES-CHIP	1K	5%	1/10W
R10	1-216-081-00	METAL CHIP	22K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R11	1-216-049-11	RES-CHIP	1K	5%	1/10W
R12	1-216-049-11	RES-CHIP	1K	5%	1/10W
R51	1-216-049-11	RES-CHIP	1K	5%	1/10W
R52	1-216-105-00	RES-CHIP	220K	5%	1/10W
R53	1-216-073-00	METAL CHIP	10K	5%	1/10W
R54	1-216-109-00	METAL CHIP	330K	5%	1/10W
R55	1-216-073-00	METAL CHIP	10K	5%	1/10W
R56	1-216-089-00	RES-CHIP	47K	5%	1/10W
R60	1-216-049-11	RES-CHIP	1K	5%	1/10W
R61	1-216-113-00	METAL CHIP	470K	5%	1/10W
R62	1-216-025-00	RES-CHIP	100	5%	1/10W
R63	1-216-015-00	METAL CHIP	39	5%	1/10W
R64	1-216-073-00	METAL CHIP	10K	5%	1/10W
		< VARIABLE RESISTOR >			
RV1	1-238-650-11	RES, VAR, CARBON 10K (VOL)			
		< TRANSFORMER >			
T1	1-404-789-11	TRANSFORMER, IF			

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Page	Before Change				After Change			
	Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
			MISCELLANEOUS **********				MISCELLANEOUS **********	
	5	1-501-362-11	ANTENNA, TELESCOPIC		5	1-501-222-31	ANTENNA, TELESCOPIC	
19			ACCESSORIES & PACKING MATERIALS **********				ACCESSORIES & PACKING MATERIALS **********	
	*	3-385-096-01	INDIVIDUAL CARTON					
		3-385-979-01	LABEL (DIGITAL DEVICE), FCC					
		3-704-365-01	BAG (STANDARD), PROTECTION					
		3-755-441-21	MANUAL, INSTRUCTION			3-757-121-23	MANUAL, INSTRUCTION (ENGLISH)	

• Items marked "*" are not stocked since they are seldom required for routine service.
Some delay should be anticipated when ordering these items.

Sony Corporation
Personal Audio Division Company

9-957-577-81

1999L0516-1
Printed in Japan ⓒ 1999. 12
Published by General Engineering Dept.